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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,637	12/02/2003	Shih-Hung Chao	39524.9000	4530

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EXAMINER
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EVANISKO, LESLIE J

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/725,637	CHAO ET AL.	
	Examiner	Art Unit	
	Leslie J. Evanisko	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Election/Restrictions**

1. Applicant's election without traverse of Group II, claims 8-11 in the reply filed on December 12, 2005 is acknowledged.
2. Claims 1-7 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 12, 2005.

### **Priority**

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### **Drawings**

4. The replacement sheets of drawings were received on May 22, 2006. These drawings are approved by the Examiner.

### **Claim Objections**

5. Claim 19 is objected to because of the following informalities:  
With respect to claim 19, the claim lacks a period at the end of the sentence.  
Appropriate correction and/or clarification is required.

**Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 8-10 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Uke (US 2003/0223797 A1). Uke teaches an upper case 103 of a keyboard 100 comprising a panel 104 including an opening 108b and a first keyhousing 108a integrally formed with the panel, the opening defining a rim, and a movable keyhousing 120 affixed on the rim of the opening, wherein the second keyhousing is formed non-integrally with the panel. See, in particular, Figures 1-9 and paragraphs [0038]-[0040] of Uke.

With respect to claims 9-10, note Uke teaches the movable keyhousing 120 is affixed on/in the rim of the opening 108b in various ways such as by using screws, press fits, ledges, locators, etc. provided on either the keyhousing 120 or housing 103, as described in paragraph [0040].

With respect to claim 12, note Uke teaches the panel 104 includes only one opening 108b.

With respect to claims 13, note Uke teaches the panel 104 comprises only one second keyhousing 120.

With respect to claims 14, note the diameter of the opening 108b of Uke is clearly larger than 1 mm, since it functions to house key module 120 holding a plurality of keys 102 of a keyboard assembly which inherently are each of a scale greater than 1 mm in order to have an operable device.

### **Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uke (US 2003/0223797 A1). With respect to claims 15-20, note these claims are being interpreted by the Examiner as product-by-process claims, as discussed in MPEP 2113,

which states, "...the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

Therefore, note that Uke teaches the claimed product of an upper case of a keyboard (formed by molding a plastic material as described in paragraph [0068]) including a panel 104 having an opening 108b and a plurality of first keyhousings 108a integrally formed with the panel, the opening defining a rim (i.e., side edges of the opening), and a second keyhousing 120 positioned in the opening 108b, the second keyhousing being formed non-integrally with the panel. See Figures 1-9 in particular. Although Uke does not specifically show the second keyhousing 120 positioned "above" the opening, note Uke teach the keyhousing 120 can be retained within the opening in a variety of ways in paragraph [0040], such as by using screws, snaps, press fits, ledges, locators, etc. provided on either the keyhousing 120 or the housing 103. Therefore, even though it is not clear whether the keyhousing 120 of Uke is inserted into the opening from "above" or "below" the opening, it would have been obvious to one of ordinary skill in the art to provide the keyhousing 120 to be inserted into the opening from above (and to be retained in the opening by engaging, for example, with ledges provided on the panel 104) to allow it to be more easily removed and exchanged with another keyhousing since a keyhousing inserted from below the opening would appear to require disassembly of the entire housing structure of the keyboard. Therefore, since Uke renders obvious a plastic molded upper case product as recited, it meets the claim language as recited.

With respect to claim 16, note the above comments with respect to claim 13.

With respect to claim 17, again note that claims 15-20 are product-by-process claims and since Uke renders obvious the product as recited, it meets the claim language including the process step of claim 17 as recited.

With respect to claim 18, note the above comments with respect to claim 12.

With respect to claim 19, note the above comments with respect to claims 9-10.

With respect to claim 20, note the above comments with respect to claim 14.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uke (US 2003/0223797 A1) in view of JP 09-274825. Uke teaches an upper case of a keyboard having all of the structure as recited, with the exception of the second keyhousing being “fused” and affixed on the rim of the opening as recited. However, JP ‘825 teaches the practice of affixing a switch frame having a plurality of key switches in an opening in a switch case for a keyboard for an electronic device by fusing the two parts together is well known in the art. See, for example, the text of the abstract, as well as Figures 1 and 3-4. In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the second keyhousing of Uke to be affixed on the rim of the opening in the upper panel by fusing, as taught by JP ‘825, to provide a better seal between the parts for excluding moisture and dust from the interior of the keyboard and thereby allow for use of the keyboard in harsh environments.

### **Response to Arguments**

12. Applicant's arguments with respect to claims 8-14 have been considered but are moot in view of the new ground(s) of rejection.

In particular, note Uke (either alone or in combination with JP 09-274825) teaches or renders obvious an upper panel of a keyboard including first and second keyhousings (i.e., the housing used for inserting a key cap) as specifically recited.

### **Conclusion**

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oka (US 5,049,863), Anderson et al. (US 6,104,604), and Wu (US 6,965,076 B2) each teach a modular keyboard having integrally formed keyhousings and non-integrally formed keyhousings having obvious similarities to the claimed subject matter.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Leslie J. Evanisko** whose telephone number is **(571) 272-2161**. The examiner can normally be reached on T-F 8:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Leslie J. Evanisko  
Primary Examiner  
Art Unit 2854